

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Patent of: Helmut Hettche  
Patent Number: U.S. 5,164,194  
Issued: November 17, 1992  
Expires: November 17, 2009  
FOR: AZELASTINE CONTAINING MEDICAMENTS

RECEIVED

Box Pat. Ext.  
Commissioner of Patents and Trademarks  
Washington, DC 20231

DEC 18 1996

LETTER OF TRANSMITTAL OF PATENT EXTENSION  
APPLICATION FOR EXTENSION OF PATENT TERM A/C PATENTS

Dear Sir:

Transmitted herewith is an application for extension of the term of U.S. Patent No. 5,164,194 in accordance with the provisions of 35 U.S.C. 156, a Power of Attorney and Declaration in connection therewith and a duplicate copy of the papers, certified as such.

The filing fee of \$1,090.00 required in accordance with 37 C.F.R. Section 120 should be charged to Deposit Account 03-0935. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account 03-0935. Two additional copies of this letter are enclosed.

Respectfully submitted,



Kevin B. Clarke, Esq.  
Attorney for Applicant  
Registration No. 22,647  
(212) 339-5207  
Carter-Wallace, Inc.  
1345 Avenue of the Americas  
New York, New York 10105

Date: 12-18-96

CERTIFICATE OF MAILING

I hereby certify that this paper and the papers transmitted herewith are being deposited on the date shown below with the United States Postal Service with sufficient postage as First Class Mail addressed to Box Pat. Ext. Commissioner of Patents and Trademarks, Washington, DC 20231.

Date: 12-18-96

Kevin B. Clarke, Esq.  
Name of Person Mailing Paper



Signature of Person Mailing Paper

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PATENT EXTENSION  
A/C PATENTS

Commissioner of Patents and Trademarks  
Washington, DC 20231

POWER OF ATTORNEY

Dear Sir:

Asta Medica, AG (formerly known as Asta Pharma AG), located at Frankfurt AM Main, Germany represents that it is the assignee of the entire interest in and to Letters Patent of the United States No. 5,164,194, granted to Helmut Hettche by virtue of an assignment of such patent recorded December 26, 1989, Reel 5237, Frame 0353 and hereby appoints

Kevin B. Clarke, Esq.  
Reg. No. 22,647  
C/O Carter-Wallace, Inc.  
1345 Avenue of the Americas  
New York, NY, U.S.A. 10105

its attorney, to apply for an extension of the term of said patent, to make alternations and amendments therein, and transact all business in the United States Patent Office connected therewith, and request that all further correspondence be conducted with Kevin B. Clarke at the above address.

Respectfully submitted,

By: W. R.  
Title: Dr. Klaus Rutz  
V.P. Business development  
Date: Dec. 12. 1996

Asta Medica AG  
By: [Signature]  
Title: Professor Juergen Engel  
Date: \_\_\_\_\_

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Patent Number: U.S. 5,164,194  
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A/C PATENTS

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Washington, DC 20231

DECLARATION IN SUPPORT OF APPLICATION  
FOR PATENT EXTENSION UNDER 37 C.F.R. 1.740(b)

Dear Sir:

We, Dr. Klaus Rutz and Professor Juergen Engel, agents of the owner of record, Asta Medica, AG (formerly known as Asta Pharma, AG), of U.S. Patent No. 5,164,194 residing at Frankfurt AM Main Germany hereby declare as follows:

(1) This declaration is submitted in support of owner's Application for Extension of Patent Term for U.S. Patent No. 5,164,194, filed simultaneously herewith.

(2) We are officials of the owner of record of U.S. Patent 5,164,194 and are authorized to act on behalf of said owner.


(3) Wallace Laboratories, Division of Carter-Wallace, Inc., the holder of approved NDA No. 20-114 covering Wallace Laboratories azelastine hydrochloride product known as Astelin®, is a Licensee of owner under U.S. Patent 5,164,194.

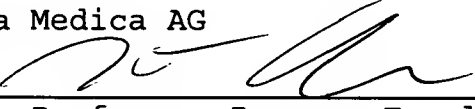
(4) We have reviewed and understand the contents of the owner's Application for Extension of Patent term for U.S. Patent 5,164,194 being submitted herewith pursuant to 37 C.F.R. 1.740.

(5) We believe that U.S. Patent 5,164,194 is subject to extension pursuant to 37 C.F.R. 1.740 and believe that an extension of the length claimed in the Application for Extension of Patent Term for U.S. Patent 5,164,194 filed simultaneously herewith is justified under 35 U.S.C. 156 and the applicable requirements.

(6) We believe that U.S. Patent 5,164,194 for which extension is being sought meets the conditions for extension of the term of a patent as set forth in 37 C.F.R. 1.720.

We further state that the above statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code and that any willful false statements may jeopardize the validity of U.S. Patent No. 5,164,194.

By:   
Title: Dr. Klaus Rutz  
V.P. business development  
Date: Dec. 12. 1996

Asta Medica AG  
By:   
Title: Professor Juergen Engel  
Date: \_\_\_\_\_

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In Re Patent of:	Helmut Hettche	
Patent Number:	U.S. 5,164,194	DEC 18 1996
Issued:	November 17, 1992	PATENT EXTENSION A/C PATENTS
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FOR:	AZELASTINE CONTAINING MEDICAMENTS	

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Washington, DC 20231

APPLICATION FOR EXTENSION OF PATENT TERM  
UNDER 35 U.S.C. 156

Dear Sir:

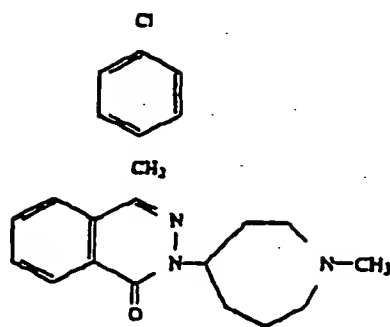
Applicant, Asta Medica, AG (formerly known as Asta Pharma, AG), represents that by virtue of an assignment recorded on December 26, 1989, at Reel 5237, Frame 0353, it is the assignee of the entire interest in and to Letters Patent of the United States No. 5,164,194 granted to Helmut Hettche. The claims of U.S. Patent No. 5,164,194 cover methods for using azelastine hydrochloride.

Pursuant to a license agreement dated August 16, 1982, Applicant granted Carter-Wallace, Inc., through its Wallace Laboratories Division, the exclusive right, with the right to grant sublicenses, to make, have made, use and sell the product azelastine in the United States of America together with the right to apply for, obtain and/or maintain investigational new drug exemptions ("IND's"), new drug applications ("NDA's") or other government clearances or approvals to market azelastine.

Azelastine hydrochloride NDA No. 20-114 which covers methods of using Wallace Laboratories' azelastine hydrochloride known as Astelin (hereafter the Approved Product) was approved on November 1, 1996.

Applicant hereby submits this application for extension of patent term under 35 U.S.C. 156, providing the following information as required by 37 C.F.R. 1.740:

(1) The Approved Product has the following structure:



(2) The Approved Product was subject to regulatory review under the Federal Food, Drug and Cosmetic Act (21 U.S.C. 355), Section 505.

(3) Applicant's licensee received permission for the commercial marketing or use of the Approved Product under Section 505 of the Federal Food, Drug and Cosmetic Act (21 U.S.C. 355) on November 1, 1996.

(4) This application for extension of patent term of United States Patent No. 5,164,194 under 35 U.S.C. 156 is being submitted within the sixty (60) day period permitted for submission, the last day for said submission being December 30, 1996.

(5) The complete identification of the patent for which an extension is being sought is as follows:

Inventor:	Helmut Hettche
Patent No.:	U.S. 5,164,194
Issued:	November 17, 1992
Expiration Date:	November 17, 2009

(6) A copy of the patent for which an extension is being sought is attached herewith as "Attachment A."

(7) A copy of the receipt for payment of the 4 year maintenance fee is attached herewith as "Attachment B."

(8) No disclaimer, certificate of correction, re-examination certificate or other receipt of maintenance fee payment has been issued with respect to U.S. Patent No. 5,164,194.

(9) U.S. Patent No. 5,164,194 claims methods for using the Approved Product, as identified in paragraph (1) hereinabove. More specifically, the methods are claimed in claims 1-9 and 12 of U.S. Patent No. 5,164,194 as follows:

(1) A method for the treatment of irritation or disorders of the nose and eye which comprises applying directly to nasal tissues or to the conjunctival sac of the eyes a medicament which contains a member selected from the group consisting of azelastine and its physiologically acceptable salts.

(2) A method as set forth in claim 1 in which the medicament contains 0.0005 to 2% (weight/weight) of azelastine or an amount of a physiologically acceptable salt of azelastine which contains 0.0005 to 2% (weight/weight) azelastine.

(3) A method as set forth in claim 2 in which the medicament contains 0.001 to 1% (weight/weight) of azelastine or an amount of a physiologically acceptable salt of azelastine which contains 0.001 to 1% (weight/weight) azelastine.

(4) A method as set forth in claim 1 in which the medicament contains 0.003 to 0.5% (weight/weight) of azelastine or an amount of a physiologically acceptable salt of azelastine which contains 0.003 to 0.5% (weight/weight) azelastine.

(5) A method as set forth in claim 1 in which the medicament contains a pharmaceutically usable preservative in an amount of 0.001 to 0.1%.

(6) A method as set forth in claim 1 in which the medicament is a solution.

(7) A method as set forth in claim 1 in which the medicament is an aqueous solution.

(8) A method as set forth in claim 1 in which the medicament is a solution which contains 0.001 to 0.05% (weight/volume of solution) of sodium-2-(ethylmercurithio)-benzoate or 0.001 to 0.1% (weight/volume of solution) of alkylbenzyl dimethyl ammonium chloride.

(9) A method as set forth in claim 1 in which the medicament is applied by spraying.

(12) A method for the treatment of a patient suffering from allergy-related, or vasomotor or rhino-related colds or symptoms which comprises applying directly to the patient's nasal tissues or to the conjunctival sac of the patient's eye a medicament which contains a member selected from the group consisting of azelastine and its physiologically acceptable salts.

(10) The relevant dates and information pursuant to 35 U.S.C. 156(g) to enable the Secretary of Health and Human Services to determine the length of the applicable regulatory review period are as follows:

(a) U.S. Patent No. 5,164,194 was issued on November 17, 1992. U.S. Patent No. 5,164,194 is set to expire on November 17, 2009;

(b) IND for the Approved Product was filed by Wallace Laboratories on January 31, 1989, received and accorded IND No. 32,704 on February 6, 1989 and was effective on February 6, 1989;

(c) NDA for the Approved Product was submitted by Wallace Laboratories on March 26, 1991 (NDA No. 20-114); and

(d) NDA No. 20-114 for the Approved Product was approved on November 1, 1996.

(11) A brief description of the activities undertaken by the Applicant's licensee during the applicable regulatory review period with respect to the Approved Product and the significant dates applicable to such activities is attached herewith as "Attachment C."

(12) Applicant is of the opinion that U.S. Patent No. 5,164,194 is eligible for extension under 35 U.S.C. 156 because it satisfies the requirements for such extension as follows:

- (a) 35 U.S.C. 156(a)  
U.S. Patent No. 5,164,194 claims the method of using the Approved Product;
- (b) 35 U.S.C. 156(a)(1)  
The term of U.S. Patent No. 5,164,194 has not expired before submission of this application for extension;
- (c) 35 U.S.C. 156(a)(2)  
The term of U.S. Patent No. 5,164,194 has never been extended;
- (d) 35 U.S.C. 156(a)(3)  
The application for extension is submitted by the agent of the owner of record of U.S. Patent No. 5,164,194 in accordance with the requirements of 35 U.S.C. 156(d) and the guidelines of the U.S. Patent and Trademark Office;
- (e) 35 U.S.C. 156(a)(4)  
The Approved Product has been subject to regulatory review period before its commercial marketing or use;



- (f) 35 U.S.C. 156(a)(5)(A)  
The permission for the commercial marketing or use of the Approved Product, after the regulatory review period is the first permitted commercial marketing or use of the product, under the provisions of the Federal Food, Drug and Cosmetic Act (21 U.S.C. 355) under which such regulatory review period occurred; and
- (g) 35 U.S.C. 156(c)(4)  
No other patent has been extended for the same regulatory review period for the Approved Product.

(13) The length of extension of the term of United States Patent No. 5,164,194 claimed by applicant is 349 days. The maximum allowable under 35 U.S.C. 156 (c)(3) since the addition of 349 days to the patent term would yield a patent term of 14 years from the date of approval of the Approved Product. The regulatory review period exceeds 349 days as shown by the following:

- (a) The regulatory review period under 35 U.S.C. 156 (g)(1)(B)(i) and (ii) was from February 6, 1989 until November 1, 1996;
- (b) United States Patent No. 5,164,194 issued on November 17, 1992, which was 1,380 days after commencement of the regulatory review period;
- (c) The period of review "Testing Period" under 35 U.S.C. 156 (g)(1)(B)(i) was from February 6, 1989, until March 26, 1991, which is 779 days subject to the following limitation:
  - (1) deduction of 779 days which occurred on or before the issuance of United States Patent No. 5,164,194. Accordingly, zero days of regulatory review occurred during the "Testing Period".
- (d) The period of review "Application Period" under 35 U.S.C. 156 (g)(1)(B)(ii) was from March 26, 1991, until November 1, 1996, which is 2046 days subject to the following limitation:
  - (1) deduction of 601 days which occurred on or before the issuance of United States Patent No. 5,164,194. Accordingly, 1445 days of regulatory review occurred during the Application Period.
- (e) In the absence of the 14 year limitation imposed by 35 U.S.C. 156 (c)(3), noted above, the permissible period of extension of term of United States Patent No. 5,164,194 would have been 1445 days;

(f) In compliance with 35 U.S.C. 156 (c) (3) the period remaining on the term of United States Patent No. 5,164,194 after approval of the Approved Product 4748 days which when added to the 349 day extension claimed by applicant 5097 days is not in excess of 14 years and will give United States Patent No. 5,164,194 an expiration date of November 1, 2010.

(14) Applicant acknowledges a duty to disclose to the Commissioner of Patents and Trademarks and the Secretary of Health and Human Services any information which is material to any determination to be made relative to this application for extension.

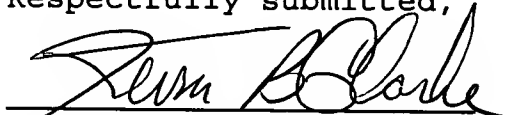
(15) The prescribed fee of \$1090.00 for receiving and acting upon this application for extension is to be charged to Deposit Account 03-0935 as authorized in the accompanying letter which is submitted in duplicate. The requisite Declaration, set forth in 37 C.F.R. 1.740(a) (17) and (b) is also attached hereto.

(16) Inquiries and/or other correspondence relating to this application for patent term extension are to be directed to:

Kevin B. Clarke, Esq.  
Carter-Wallace, Inc.  
1345 Avenue of the Americas  
New York, New York 10105

(17) A certified duplicate copy of the application papers is submitted herewith.

Respectfully submitted,

  
Kevin B. Clarke, Esq.  
Attorney for Applicant  
Registration No. 22,647  
Carter-Wallace, Inc.  
1345 Avenue of the Americas  
New York, New York 10105  
(212) 339-5207

TO WHOM IT MAY CONCERN:

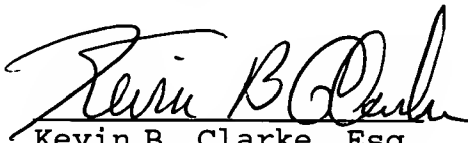
RECEIVED

DEC 18 1996

CERTIFICATE

PATENT EXTENSION  
A/C PATENTS

I hereby certify that the attached Application for Extension of Term of U.S. Patent 5,164,194 together with attachments thereto, Declaration in Support of Application for Patent Extension and Power of Attorney are true and duplicate copies of the originals of said documents filed with the United States Patent Office on this date.

  
Kevin B. Clarke, Esq.

date: 12-18-96



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D. C. 20231

Attachment "B"

75M7/0509

CUSHMAN, DARBY & CUSHMAN  
1100 NEW YORK AVENUE, N.W.  
NINTH FLOOR  
WASHINGTON, DC 20005-3918

## MAINTENANCE FEE STATEMENT

The data shown below is from the records of the Patent and Trademark Office. If the maintenance fees and any necessary surcharges have been timely paid for the patents listed below, the notation "PAID" will appear in column 10, "status" below.

If a maintenance fee payment is defective, the reason is indicated by code in column 10, "status" below. An explanation of the codes appears on the reverse of the Maintenance Fee Statement. **TIMELY CORRECTION IS REQUIRED IN ORDER TO AVOID EXPIRATION OF THE PATENT. NOTE 37 CFR 1.377. THE PAYMENT(S) WILL BE ENTERED UPON RECEIPT OF ACCEPTABLE CORRECTION. IF PAYMENT OR CORRECTION IS SUBMITTED DURING THE GRACE PERIOD, A SURCHARGE IS ALSO REQUIRED. NOTE 37 CFR 1.20(k) and (l).**

If the statement of small entity status is defective the reason is indicated below in column 10 for the related patent number. **THE STATEMENT OF SMALL ENTITY STATUS WILL BE ENTERED UPON RECEIPT OF ACCEPTABLE CORRECTION.**

ITM NBR	PATENT NUMBER	FEE CDE	FEE AMOUNT	SUR CHARGE	SERIAL NUMBER	PATENT DATE	FILE DATE	PAY YR	SML ENT	STA
1	5,164,194	183	990	----	07/551,644	11/17/92	07/12/90	04	NO	PAID

If the "status" column for a patent number listed above does not indicate "PAID" a code or an asterisk (\*) will appear in the "status" column. Where an asterisk (\*) appears, the codes are set out below by the related item number. An explanation of the codes indicated in the "status" column and as set out below

Dates and brief descriptions of activities undertaken by Wallace Laboratories during the applicable regulatory review period for azelastine hydrochloride.

IND 32,704

January 31, 1989	IND for azelastine hydrochloride solution for intranasal use mailed to FDA by Wallace Laboratories.
February 6, 1989	IND received by FDA and assigned IND No. 32,704.
March 20, 1989	Wallace Laboratories letter responds to FDA telephone request for information concerning intranasal toxicity study in the rat.
May 22, 1989	FDA request for information concerning chemistry, manufacturing and control subjects and animal toxicology issues.
July 24, 1989	Wallace Laboratories submission in response to FDA request for information dated May 22, 1989.
August 4, 1989	Wallace Laboratories submission providing corrections to data submitted on March 20, 1989.
August 16, 1989	Clinical protocol 258 to assess safety, efficacy and duration of effect of several dosages of azelastine nasal spray and clinical investigator documentation submitted by Wallace Laboratories.
September 14, 1989	Clinical protocol 258 amendment to include additional investigator submitted by Wallace Laboratories.
November 22, 1989	Wallace Laboratories letter requesting a pre-NDA meeting.
December 21, 1989	Clinical protocol 272 to assess safety and efficacy of azelastine nasal spray and clinical investigator documentation submitted by Wallace Laboratories.
January 22, 1990	Wallace Laboratories submitted an updated Investigational Drug Brochure.
January 25, 1990	Wallace Laboratories acknowledged scheduling of a pre-NDA meeting and submitted information addressing format and content of integrated efficacy and safety data, individual clinical study information, case report tabulations, statistical analyses and foreign clinical experience.

**IND 32,704**

January 25, 1990	Wallace Laboratories submitted initial safety report from ongoing clinical trial.
January 30, 1990	Wallace Laboratories submitted updated pharmacology, toxicology and drug disposition information.
February 12, 1990	Clinical protocol 275 to assess safety and tolerability during extended treatment and clinical investigator documentation submitted by Wallace Laboratories.
February 13, 1990	Wallace Laboratories submitted new pharmacology information.
February 23, 1990	Annual report submitted by Wallace Laboratories.
February 26, 1990	Pre-NDA meeting convened with FDA.
March 6, 1990	Follow-up safety report submitted by Wallace Laboratories.
March 9, 1990	Wallace Laboratories submitted minutes from pre-NDA meeting.
April 9, 1990	Clinical protocol 281 to assess safety and efficacy and clinical investigator documentation submitted by Wallace Laboratories.
April 11, 1990	Clinical protocol 282 to assess safety and efficacy and clinical investigator documentation submitted by Wallace Laboratories.
April 12, 1990	Clinical protocol 272 amendment to define criteria for evaluating patient noncompliance submitted by Wallace Laboratories.
April 19, 1990	Clinical protocol 281 amendment to optimize patient compliance, data entry and data handling submitted by Wallace Laboratories.
May 4, 1990	Clinical protocol 283 to assess safety and efficacy and clinical investigator documentation submitted by Wallace Laboratories.
May 18, 1990	Clinical protocol 281 amendment to include additional investigator submitted by Wallace Laboratories.

**IND 32,704**

May 25, 1990	Administrative notification of new location and phone numbers for medical monitors overseeing clinical development program.
July 7, 1990	Wallace Laboratories submitted initial safety reports from ongoing clinical trials.
September 20, 1990	Follow-up safety report submitted by Wallace Laboratories.
October 23, 1990	Wallace Laboratories submitted updated chemistry, manufacturing and control information.
January 9, 1991	Wallace Laboratories letter in preparation for FDA meeting to discuss environmental assessment issues for NDA.
January 16, 1991	Meeting with FDA to discuss environmental assessment issues for NDA.
February 14, 1991	Wallace Laboratories letter submitting minutes from the January 16, 1991 meeting concerning NDA environmental assessment issues.
March 15, 1991	Annual report submitted by Wallace Laboratories.
March 27, 1992	Annual report submitted by Wallace Laboratories.
August 13, 1992	Clinical protocol 315 to assess safety and efficacy as adjunctive therapy and clinical investigator documentation submitted by Wallace Laboratories.
August 26, 1992	Wallace Laboratories submitted updated chemistry, manufacturing and control information.
September 9, 1992	Clinical protocol 315 amendment concerning clinical investigator submitted by Wallace Laboratories.
March 8, 1993	Annual report submitted by Wallace Laboratories.
May 10, 1993	Clinical protocol 312 to assess safety and efficacy as adjunctive therapy and clinical investigator documentation submitted by Wallace Laboratories.

**IND 32,704**

June 4, 1993	Clinical protocol 312 amendment to include additional investigator submitted by Wallace Laboratories.
August 18, 1993	Clinical protocol 316 to assess safety and efficacy against beclomethasone and clinical investigator documentation submitted by Wallace Laboratories.
August 23, 1993	Wallace Laboratories letter requesting meeting with FDA to discuss adjunctive therapy clinical trials.
September 1, 1993	Clinical protocol 316 amendment addressing chemistry, manufacturing and control submitted by Wallace Laboratories.
September 9, 1993	Clinical protocol 316 amendment to include additional investigators submitted by Wallace Laboratories.
September 27, 1993	Clinical protocol 316 amendment to revise clinical investigator information submitted by Wallace Laboratories.
March 22, 1994	Annual report submitted by Wallace Laboratories.
February 24, 1995	Annual report submitted by Wallace Laboratories.
September 21, 1995	Wallace Laboratories submitted initial safety report from foreign source.
October 19, 1995	Follow-up safety report submitted by Wallace Laboratories.
November 30, 1995	Wallace Laboratories submitted initial safety report from foreign source.
December 1, 1995	Wallace Laboratories submitted initial safety report from foreign source.
January 19, 1996	Follow-up safety report submitted by Wallace Laboratories.
February 16, 1996	Annual report submitted by Wallace Laboratories.
March 22, 1996	Clinical protocol 362 to assess product acceptance by patients submitted by Wallace Laboratories.
May 2, 1996	Wallace Laboratories submitted initial safety report from foreign source.



**NDA 20-114**

March 26, 1991	Wallace Laboratories submits NDA 20-114.
April 17, 1991	FDA acknowledges receipt of NDA 20-114 with receipt date of March 26, 1991.
June 25, 1991	Wallace Laboratories response to FDA request for information concerning Drug Master File reference letters.
August 2, 1991	Wallace Laboratories letter clarifying sites that will perform manufacturing, packaging, labeling and control operations.
August 8, 1991	Four month interim safety update submitted by Wallace Laboratories.
October 25, 1991	Wallace Laboratories response to FDA request for information concerning spray pumps used in the clinical trials.
December 16, 1991	Detailed safety update submitted by Wallace Laboratories.
December 19, 1991	Wallace Laboratories response to FDA request for information concerning labeling and study reports from clinical trials.
February 18, 1992	FDA not approvable letter detailing chemistry, manufacturing and control deficiencies in the application.
February 28, 1992	Wallace Laboratories letter declaring its intention to amend the application in response to FDA's February 18, 1992 letter.
February 28, 1992	Protocol for pharmacokinetic study in mice submitted for review (per FDA request) by Wallace Laboratories.
April 22, 1992	Response to FDA letter dated February 18, 1992 concerning pump use and patient compliance during clinical trials submitted by Wallace Laboratories.
May 4, 1992	Environmental Assessment Update submitted by Wallace Laboratories.
June 10, 1992	Full clinical study report for protocol 235 (per FDA request) submitted by Wallace Laboratories.
July 6, 1992	Wallace Laboratories letter clarifying contract packager/labeler of drug product.

**NDA 20-114**

September 28, 1992	Item 9. Safety Update submitted by Wallace Laboratories.
October 23, 1992	Information concerning pharmacokinetics submitted by Wallace Laboratories.
November 2, 1992	Correction to information contained in submission dated June 10, 1992, submitted by Wallace Laboratories.
November 20, 1992	Data from pharmacokinetic study in mice submitted by Wallace Laboratories.
December 18, 1992	Response to FDA letter dated February 18, 1992 concerning chemistry, manufacturing and control issues submitted by Wallace Laboratories.
December 21, 1992	Full clinical report for protocol 195 concerning azelastine-alcohol interaction that was previously submitted to another azelastine NDA was incorporated by Wallace Laboratories into NDA 20-114 by cross-reference.
January 7, 1993	Full clinical report for NDA Study 24 concerning treatment of bronchial asthma that was previously submitted to another azelastine NDA was incorporated by Wallace Laboratories into NDA 20-114 by cross-reference.
February 19, 1993	Data re-analyses requested by FDA on November 5, 1992, submitted by Wallace Laboratories.
February 24, 1993	Patient distribution flow charts into controlled and uncontrolled clinical studies as requested by FDA submitted by Wallace Laboratories.
March 10, 1993	Desk copies of Volumes 1 (index) and 2 (summary) requested by Division of Scientific Investigation provided by Wallace Laboratories.
April 22, 1993	Minutes from a meeting on April 1, 1993, between FDA and Wallace Laboratories submitted by Wallace Laboratories.
May 7, 1993	Revised Environmental Assessment and freedom of information copy submitted by Wallace Laboratories.

**NDA 20-114**

May 17, 1993	Patient listings of adverse experiences and selected case report forms requested by Division of Scientific Investigation provided by Wallace Laboratories.
August 6, 1993	Data in response to FDA facsimile request for information dated May 21, 1993, concerning chemistry, manufacturing and control aspects submitted by Wallace Laboratories.
August 18, 1993	Data in response to FDA facsimile request for information dated June 1, 1993, concerning statistical analyses submitted by Wallace Laboratories.
August 24, 1993	Disassembled spray pump units requested by FDA submitted by Wallace Laboratories.
December 2, 1993	Archival volumes of NDA (previously stored by Wallace Laboratories at FDA's request) submitted by Wallace Laboratories.
January 13, 1994	FDA request for information concerning chemistry, manufacturing and control and environmental assessment issues.
February 16, 1994	FDA not approvable letter and request for information concerning clinical safety and effectiveness issues.
February 23, 1994	Wallace Laboratories letter notifying FDA of intent to amend the NDA in response to FDA's February 16, 1994 letter.
March 31, 1994	Wallace Laboratories letter confirming meeting for April 11, 1994, to address chemistry, manufacturing and control issues.
April 6, 1994	Data in response to FDA not approvable letter dated February 16, 1994, submitted by Wallace Laboratories.
May 10, 1994	Minutes from a meeting on April 11, 1994 between FDA and Wallace Laboratories submitted by Wallace Laboratories.
June 29, 1994	Additional data inadvertently omitted from the April 6, 1994 submission provided by Wallace Laboratories.
July 6, 1994	Wallace Laboratories letter confirming meeting with FDA to address clinical issues scheduled for July 27, 1994.

**NDA 20-114**

July 7, 1994	Cardiac safety information submitted to another NDA incorporated by Wallace Laboratories into NDA 20-114 by cross-reference.
August 9, 1994	Wallace Laboratories letter summarizing understandings of cardiac safety data and analyses expected by FDA as a result of the July 27, 1994 meeting.
October 28, 1994	Data addressing cardiac safety issues addressed by FDA in the not approvable letter dated February 16, 1994, and at the July 27, 1994 FDA-Wallace Laboratories meeting submitted by Wallace Laboratories.
June 30, 1995	Data addressing chemistry, manufacturing and control issues contained in FDA's letter dated January 13, 1994, submitted by Wallace Laboratories.
June 30, 1995	Data addressing clinical issues contained in FDA's not approvable letter dated February 16, 1994, submitted by Wallace Laboratories.
August 2, 1995	Additional data inadvertently omitted from the June 30, 1995 clinical submission provided by Wallace Laboratories.
August 10/11, 1995	Desk copies of selected volumes from the June 30, 1995 clinical submission provided by Wallace Laboratories.
August 31, 1995	Extractable specification data in response to FDA's letter dated January 13, 1994, submitted by Wallace Laboratories.
September 8, 1995	Tabular adverse experience data from US and European controlled clinical trials in response to FDA request on August 22, 1995, submitted by Wallace Laboratories.
September 19, 1995	Gender efficacy analysis in response to FDA request on September 15, 1995, submitted by Wallace Laboratories.
September 22, 1995	Revised annotated labeling and diskettes submitted by Wallace Laboratories.
September 29, 1995	Revised environmental assessment in response to FDA request dated September 12, 1995, submitted by Wallace Laboratories.

**NDA 20-114**

October 5, 1995	Information brochure for distribution to the Pulmonary-Allergy Drugs Advisory Committee provided to FDA by Wallace Laboratories.
October 16, 1995	FDA letter notifying Wallace Laboratories of change in nomenclature for Astelin Nasal Spray.
October 30, 1995	Slides for use by Wallace Laboratories at the November 17, 1995 Pulmonary-Allergy Drugs Advisory Committee Meeting provided to FDA by Wallace Laboratories.
November 9, 1995	Revised slides for November 17, 1995 meeting provided to FDA by Wallace Laboratories.
December 29, 1995	FDA approvable letter for NDA 20-114 issued.
January 2, 1996	Wallace Laboratories letter advising FDA that it intends to amend the NDA in response to the December 29, 1995 approvable letter.
March 25, 1996	Wallace Laboratories letter requesting a meeting to discuss labeling for pediatric patients less than 12 years of age in accordance with the pediatric rule published in the Federal Register.
May 8, 1996	Documentation to support a meeting request on pediatric labeling submitted by Wallace Laboratories.
May 13, 1996	Data addressing chemistry, manufacturing and control issues addressed in FDA's approvable letter dated December 29, 1995, submitted by Wallace Laboratories.
May 22, 1996	FDA letter declining meeting on pediatric labeling and outlining deficiencies in available data.
June 7, 1996	Data addressing nitrosamines and specifications submitted by Wallace Laboratories.
July 3, 1996	Wallace Laboratories telephone facsimile addressing clarifications to chemistry, manufacturing and control data.
July 8, 1996	Wallace Laboratories telephone facsimile addressing clarifications to chemistry, manufacturing and control data.

**NDA 20-114**

July 10, 1996	Data submitted by Wallace Laboratories formalizing telephone facsimiles of July 3 and 8, 1996.
July 17, 1996	Meeting request to finalize chemistry, manufacturing and control sections of application submitted by Wallace Laboratories; request withdrawn by Wallace Laboratories on July 24, 1996 at FDA request.
July 19, 1996	Meeting request to finalize product labeling submitted by Wallace Laboratories.
August 20, 1996	Response to FDA telephone facsimile on August 14, 1996, requesting additional chemistry, manufacturing and control information and revised container labeling submitted by Wallace Laboratories.
September 18, 1996	Revisions to data submitted by Wallace Laboratories on August 20, 1996, re-submitted by Wallace Laboratories.
September 30, 1996	Response to FDA telephone facsimile on September 25, 1996, requesting additional chemistry, manufacturing and control information submitted by Wallace Laboratories.
October 9, 1996	Revised specifications submitted by Wallace Laboratories.
October 9, 1996	Safety Update submitted by Wallace Laboratories.
October 28, 1996	FDA method validation letter for NDA 20-114.
October 31, 1996	Revised product labeling submitted by Wallace Laboratories.
November 1, 1996	FDA notifying Wallace Laboratories that NDA 20-114 is approved.

*Self* *#23* *DAD*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*Karin Tyson*  
In Re Patent of:

*07/551,644*  
Helmut Hettche

Patent Number:

U.S. 5,164,194

Issued:

November 17, 1992

Expires:

November 17, 2009

FOR:

AZELASTINE CONTAINING MEDICAMENTS

RECEIVED

DEC 18 1996

PATENT EXTENSION  
A/C PATENTS

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01/06/97 5164194  
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Box Pat. Ext.  
Commissioner of Patents and Trademarks  
Washington, DC 20231

APPLICATION FOR EXTENSION OF PATENT TERM  
UNDER 35 U.S.C. 156

Dear Sir:

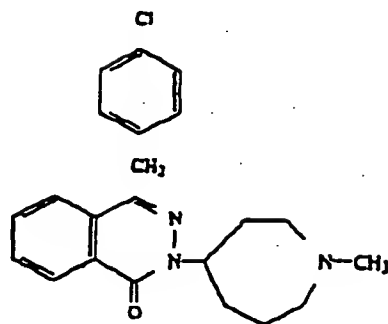
Applicant, Asta Medica, AG (formerly known as Asta Pharma, AG), represents that by virtue of an assignment recorded on December 26, 1989, at Reel 5237, Frame 0353, it is the assignee of the entire interest in and to Letters Patent of the United States No. 5,164,194 granted to Helmut Hettche. The claims of U.S. Patent No. 5,164,194 cover methods for using azelastine hydrochloride.

Pursuant to a license agreement dated August 16, 1982, Applicant granted Carter-Wallace, Inc., through its Wallace Laboratories Division, the exclusive right, with the right to grant sublicenses, to make, have made, use and sell the product azelastine in the United States of America together with the right to apply for, obtain and/or maintain investigational new drug exemptions ("IND's"), new drug applications ("NDA's") or other government clearances or approvals to market azelastine.

Azelastine hydrochloride NDA No. 20-114 which covers methods of using Wallace Laboratories' azelastine hydrochloride known as Astelin (hereafter the Approved Product) was approved on November 1, 1996.

Applicant hereby submits this application for extension of patent term under 35 U.S.C. 156, providing the following information as required by 37 C.F.R. 1.740:

(1) The Approved Product has the following structure:



(2) The Approved Product was subject to regulatory review under the Federal Food, Drug and Cosmetic Act (21 U.S.C. 355), Section 505.

(3) Applicant's licensee received permission for the commercial marketing or use of the Approved Product under Section 505 of the Federal Food, Drug and Cosmetic Act (21 U.S.C. 355) on November 1, 1996.

(4) This application for extension of patent term of United States Patent No. 5,164,194 under 35 U.S.C. 156 is being submitted within the sixty (60) day period permitted for submission, the last day for said submission being December 30, 1996.

(5) The complete identification of the patent for which an extension is being sought is as follows:

Inventor:	Helmut Hettche
Patent No.:	U.S. 5,164,194
Issued:	November 17, 1992
Expiration Date:	November 17, 2009

(6) A copy of the patent for which an extension is being sought is attached herewith as "Attachment A."

(7) A copy of the receipt for payment of the 4 year maintenance fee is attached herewith as "Attachment B."

(8) No disclaimer, certificate of correction, re-examination certificate or other receipt of maintenance fee payment has been issued with respect to U.S. Patent No. 5,164,194.

(9) U.S. Patent No. 5,164,194 claims methods for using the Approved Product, as identified in paragraph (1) hereinabove. More specifically, the methods are claimed in claims 1-9 and 12 of U.S. Patent No. 5,164,194 as follows:



- (1) A method for the treatment of irritation or disorders of the nose and eye which comprises applying directly to nasal tissues or to the conjunctival sac of the eyes a medicament which contains a member selected from the group consisting of azelastine and its physiologically acceptable salts.
- (2) A method as set forth in claim 1 in which the medicament contains 0.0005 to 2% (weight/weight) of azelastine or an amount of a physiologically acceptable salt of azelastine which contains 0.0005 to 2% (weight/weight) azelastine.
- (3) A method as set forth in claim 2 in which the medicament contains 0.001 to 1% (weight/weight) of azelastine or an amount of a physiologically acceptable salt of azelastine which contains 0.001 to 1% (weight/weight) azelastine.
- (4) A method as set forth in claim 1 in which the medicament contains 0.003 to 0.5% (weight/weight) of azelastine or an amount of a physiologically acceptable salt of azelastine which contains 0.003 to 0.5% (weight/weight) azelastine.
- (5) A method as set forth in claim 1 in which the medicament contains a pharmaceutically usable preservative in an amount of 0.001 to 0.1%.
- (6) A method as set forth in claim 1 in which the medicament is a solution.
- (7) A method as set forth in claim 1 in which the medicament is an aqueous solution.
- (8) A method as set forth in claim 1 in which the medicament is a solution which contains 0.001 to 0.05% (weight/volume of solution) of sodium-2-(ethylmercurithio)-benzoate or 0.001 to 0.1% (weight/volume of solution) of alkylbenzyl dimethyl ammonium chloride.
- (9) A method as set forth in claim 1 in which the medicament is applied by spraying.
- (12) A method for the treatment of a patient suffering from allergy-related, or vasomotor or rhino-related colds or symptoms which comprises applying directly to the patient's nasal tissues or to the conjunctival sac of the patient's eye a medicament which contains a member selected from the group consisting of azelastine and its physiologically acceptable salts.

(10) The relevant dates and information pursuant to 35 U.S.C. 156(g) to enable the Secretary of Health and Human Services to determine the length of the applicable regulatory review period are as follows:

(a) U.S. Patent No. 5,164,194 was issued on November 17, 1992. U.S. Patent No. 5,164,194 is set to expire on November 17, 2009;

(b) IND for the Approved Product was filed by Wallace Laboratories on January 31, 1989, received and accorded IND No. 32,704 on February 6, 1989 and was effective on February 6, 1989;

(c) NDA for the Approved Product was submitted by Wallace Laboratories on March 26, 1991 (NDA No. 20-114); and

(d) NDA No. 20-114 for the Approved Product was approved on November 1, 1996.

(11) A brief description of the activities undertaken by the Applicant's licensee during the applicable regulatory review period with respect to the Approved Product and the significant dates applicable to such activities is attached herewith as "Attachment C."

(12) Applicant is of the opinion that U.S. Patent No. 5,164,194 is eligible for extension under 35 U.S.C. 156 because it satisfies the requirements for such extension as follows:

- (a) 35 U.S.C. 156(a)  
U.S. Patent No. 5,164,194 claims the method of using the Approved Product;
- (b) 35 U.S.C. 156(a)(1)  
The term of U.S. Patent No. 5,164,194 has not expired before submission of this application for extension;
- (c) 35 U.S.C. 156(a)(2)  
The term of U.S. Patent No. 5,164,194 has never been extended;
- (d) 35 U.S.C. 156(a)(3)  
The application for extension is submitted by the agent of the owner of record of U.S. Patent No. 5,164,194 in accordance with the requirements of 35 U.S.C. 156(d) and the guidelines of the U.S. Patent and Trademark Office;
- (e) 35 U.S.C. 156(a)(4)  
The Approved Product has been subject to regulatory review period before its commercial marketing or use;

- (f) 35 U.S.C. 156(a)(5)(A)  
The permission for the commercial marketing or use of the Approved Product, after the regulatory review period is the first permitted commercial marketing or use of the product, under the provisions of the Federal Food, Drug and Cosmetic Act (21 U.S.C. 355) under which such regulatory review period occurred; and
- (g) 35 U.S.C. 156(c)(4)  
No other patent has been extended for the same regulatory review period for the Approved Product.

(13) The length of extension of the term of United States Patent No. 5,164,194 claimed by applicant is 349 days. The maximum allowable under 35 U.S.C. 156 (c)(3) since the addition of 349 days to the patent term would yield a patent term of 14 years from the date of approval of the Approved Product. The regulatory review period exceeds 349 days as shown by the following:

- (a) The regulatory review period under 35 U.S.C. 156 (g)(1)(B)(i) and (ii) was from February 6, 1989 until November 1, 1996;
- (b) United States Patent No. 5,164,194 issued on November 17, 1992, which was 1,380 days after commencement of the regulatory review period;
- (c) The period of review "Testing Period" under 35 U.S.C. 156 (g)(1)(B)(i) was from February 6, 1989, until March 26, 1991, which is 779 days subject to the following limitation:
  - (1) deduction of 779 days which occurred on or before the issuance of United States Patent No. 5,164,194. Accordingly, zero days of regulatory review occurred during the "Testing Period".
- (d) The period of review "Application Period" under 35 U.S.C. 156 (g)(1)(B)(ii) was from March 26, 1991, until November 1, 1996, which is 2046 days subject to the following limitation:
  - (1) deduction of 601 days which occurred on or before the issuance of United States Patent No. 5,164,194. Accordingly, 1445 days of regulatory review occurred during the Application Period.
- (e) In the absence of the 14 year limitation imposed by 35 U.S.C. 156 (c)(3), noted above, the permissible period of extension of term of United States Patent No. 5,164,194 would have been 1445 days;

(f) In compliance with 35 U.S.C. 156 (c)(3) the period remaining on the term of United States Patent No. 5,164,194 after approval of the Approved Product 4748 days which when added to the 349 day extension claimed by applicant 5097 days is not in excess of 14 years and will give United States Patent No. 5,164,194 an expiration date of November 1, 2010.

(14) Applicant acknowledges a duty to disclose to the Commissioner of Patents and Trademarks and the Secretary of Health and Human Services any information which is material to any determination to be made relative to this application for extension.

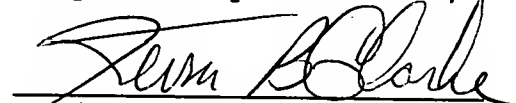
(15) The prescribed fee of \$1090.00 for receiving and acting upon this application for extension is to be charged to Deposit Account 03-0935 as authorized in the accompanying letter which is submitted in duplicate. The requisite Declaration, set forth in 37 C.F.R. 1.740(a)(17) and (b) is also attached hereto.

(16) Inquiries and/or other correspondence relating to this application for patent term extension are to be directed to:

Kevin B. Clarke, Esq.  
Carter-Wallace, Inc.  
1345 Avenue of the Americas  
New York, New York 10105

(17) A certified duplicate copy of the application papers is submitted herewith.

Respectfully submitted,



Kevin B. Clarke, Esq.  
Attorney for Applicant  
Registration No. 22,647  
Carter-Wallace, Inc.  
1345 Avenue of the Americas  
New York, New York 10105  
(212) 339-5207